What is claimed is

1.   1.   A method of measuring traffic at a node under test in a network, comprising:

2.   a)   sending a plurality of first type datagrams from a source node, each first

3.   type datagram having a path through the network including the node under

4.   test, each first type datagram causing the node under test to generate a

5.   second type datagram, and each second type datagram having a path

6.   through the network that includes the source node;

7.   b)   processing at least two of the second type datagrams to determine a

8.   number of datagrams processed by the node under test between said at

9.   least two datagrams;

10.   c)   determining the time between the at least two datagrams; and

11.   d)   computing a traffic value reflecting the ratio between the determined

12.   number of messages and the determined time.

1.   2.   The method of measuring traffic of claim 1 wherein causing the node under test to

2.   generate a second type datagram includes setting a time to live field in the first

3.   type datagram that causes the datagram to expire upon reaching the node under

4.   test.

1.   3.   The method of claim 2 wherein the second type datagram is part of a message

2.   indicating that a datagram expired.

1.   4.   The method of claim 1 wherein the source node is a consumer computer.

1.   5.   The method of claim 1 wherein the source node is a diagnostic unit connected to a

2.   call center.

1.   6.   The method of claim 5 wherein the diagnostic unit is in a different administrative

2.   domain than the node under test.

1.   7.   The method of claim 5 wherein the first type datagrams have a destination address

2.   representing a server for which a customer experienced problems accessing.

1.   8.   The method of claim 1 used in a method of responding to a customer complaint

2.   about slow access to the Internet, additionally comprising:

3.   a)   receiving from the customer a URL;

4 b) selecting the node under test based on the designated URL;

5 c) reporting to the customer based on the results of the measured traffic.

1 9. The method of claim 1 additionally comprising:

2 a) selecting a path through the network having a plurality of nodes;

3 b) measuring the traffic at the plurality of nodes according to the method of

4 claim 1.

1 10. The method of claim 1 wherein the first type datagram is in IP protocol.

1 11. The method of claim 1 wherein the second type datagrams are in IP protocol and

2 processing the second type datagrams includes computing the change in the value

3 of the identification fields in the datagrams.

1 12. The method of claim 1 wherein the second type datagram is part of a time out

2 message.

1 13. The method of claim 1 wherein the value reflecting the computed traffic value is

2 an average of values obtained from processing multiple pairs of second type

3 datagrams.

1 14. A method of measuring traffic at a node under test in a network, comrising:

2 a) sending a pair of first type datagrams from a source node separated by a

3   time interval, each of the first type datagrams having a path through the

4   network including the node under test; each of the first type datagrams

5   having a time to live field causing the datagram to expire at the node under

6   test, thereby causing the node under test to generate a timeout message in

7   response to each first type datagram;

8 b) processing the timeout messages to determine a number of datagrams

9   processed by the node under test between the timeout messages;

10 c) computing a traffic value reflecting the number of datagrams processed by

11   the node under test in the time interval.

1 15. The method of claim 14 wherein the first type datagrams are in IP protocol.

1   16.   The method of claim 14 wherein the source node is a diagnostic unit associated
2   with a call center.

1   17.   A method of measuring traffic at nodes on a path through a network, comprising,
2   for each node in the path:
3   a)   sending a pair of first type datagrams from a source node separated by a
4   time interval, each of the first type datagrams having a path through the
5   network including the node under test; each of the first type datagrams
6   having a time to live field causing the datagram to expire at the node under
7   test, thereby causing the node under test to generate a timeout message in
8   response to each first type datagram;
9   b)   processing the timeout messages to determine a number of datagrams
10   processed by the node under test between the timeout messages;
11   c)   graphically displaying the results of the processing in a graph showing
12   traffic on a node by node basis.

1   18.   The method of claim 17 additionally comprising selecting the path through the
2   network in response to a consumer complaint about accessing a node in the
3   network.

1   19.   The method of claim 17 wherein processing the timeout messages includes
2   computing the difference in the value of the ID fields in the messages.

1   20.   The method of claim 19 wherein processing the timeout messages determining the
2   ratio between the difference in the values of the ID fields and the difference in
3   times at which the messages in the pair of first type datagrams are sent.